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Journal of Open Innovation: Technology, Market, and Complexity

Provided in Cooperation with:

Society of Open Innovation: Technology, Market, and Complexity (SOItmC)

Suggested Citation: Rodrigues, Ricardo Gouveia; Silva, Rui; Leal, Carmem Pereira; Mainardes, Emerson Wagner (2021) : Marketing differences study motivations between Luso and Brazil students, Journal of Open Innovation: Technology, Market, and Complexity, ISSN 2199-8531, MDPI, Basel, Vol. 7, Iss. 2, pp. 1-17,
<https://doi.org/10.3390/joitmc7020124>

This Version is available at:

<https://hdl.handle.net/10419/241709>

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Article

Marketing Differences Study Motivations between Luso and Brazil Students

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Abstract: Motivation to learn is one of the most relevant aspects of student success in the learning process. Measuring motivation is essential in all higher education institutions (HEI). It is also important for teachers to understand the best way to encourage and motivate their students to make enforces in their constant learning. This study's general objective is to understand if there are differences in motivation to study Marketing curricular units between Portuguese (PT) and Brazilian (BR) students. We applied the Academic Motivation Scale to 156 students (82 PT and 74 BR) to measure their motivation and understand significant differences. The results showed that both groups of students are intrinsically and extrinsically motivated to study Marketing, although Brazilian students have higher motivation indices. This study contributes to the evolution of knowledge in higher education. It allows institutions to take short, medium and long-term measures on how to increase their students' motivation levels. The use of the scale adapted to Marketing is also one of the contributions to future studies.

Keywords: Academic Motivation Scale; higher education; marketing; Luso–Brazilian students



Citation: Rodrigues, R.G.; Silva, R.; Leal, C.; Mainardes, E.W. Marketing Differences Study Motivations between Luso and Brazil Students. *J. Open Innov. Technol. Mark. Complex.* **2021**, *7*, 124. <https://doi.org/10.3390/joitmc7020124>

Received: 20 February 2021

Accepted: 29 April 2021

Published: 3 May 2021

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1. Introduction

The current pandemic situation that all countries of the world are going through has caused strong economic activity development constraints, causing a worsening of social problems and, consequently, exerting strong pressure on social protection systems.

Marketing education emerged about 30 years ago, starting in a shy way, limited to one or another curricular unit framed in undergraduate courses of Management and Economics. However, from the 1980s onwards, with the appearance of graduate courses and with the creation of the degree in Marketing, there has been a strong expansion of Marketing teaching in the context of higher education. However, as a general rule, students learning these curricular units (CU) for the first time in higher education are not properly prepared. This motivation can be measured with instruments previously validated in scientific literature [1].

There is a lack of initial motivation resulting from the theoretical dimension of the Marketing CU. In this sense, there is the concern of higher education Institutions (HEI's) that, like any other organization, want their levels of education to be of excellence and quality [2] in order to ensure that future generations are prepared for the demanding level of the labour market [3]. As the quality of higher education is fundamental to the development of any society, institutions must remain open to change, evaluating and monitoring the quality of the work of all actors in the teaching-learning process [4], as well as in the continuous improvement of the various CUs that are taught [4]. These improvements may allow motivational increases, influence immersion in learning, change attitudes, and improve students' academic performance as the main actors in the teaching

process. The students' lack of interest in the traditional teaching process as the only means of delivering knowledge has resulted in a feeling that traditional teaching alone is ineffective [5] to overcome their learning difficulties [6]. Learning problems lead, in many cases, to dropping out, resulting from the lack of interest shown by students. The signs of dropping out can partially manifest themselves through decreased class attendance, reduced study hours, inattention in class, change, of course, request for transfer from the HEI [7], or total, where the student drops out of college [8].

This problem has encouraged HEIs and all intervening agents to increase changes in the teaching paradigms, essentially introducing new innovative educational methodologies that aim to complement traditional teaching processes considered, at times, somewhat ineffective [5]. In this context, HEIs must be receptive to new challenges, i.e., that constantly technological innovation encourages diverse and appealing learning resources and strategies to be adopted in teaching, increasing the possibility of students learning with higher levels of motivation [9].

Student motivation is very important to student success, with direct implications for the quality of teaching and learning [10]. One of the most widely used theories for these studies is the Self Determination Theory [11]. Motivation is fundamental to gauge the degree of students' engagement in the school context [12,13]. Within this line of thinking, studies by Colquitt and Simmering (1998) [14] conclude that motivation enables students to discover reasons for learning, for improving and for discovering and applying competencies. The same authors propose motivation as fundamental to students' academic performance and the total appropriation of the academic environment and its respective demands. However, when considering the motivations for learning, we need to consider the characteristics of the prevailing context of assimilation [15]. Correspondingly, there are many influences on learning a particular theme of knowledge with motivation ranking (intrinsic, extrinsic and amotivation) as one of the most preponderant [14]. Learning results from the motivation to study and leading studies demonstrate the existence of a tri-dimensional situation resulting from the trilogy of demotivation, intrinsic motivation and extrinsic motivation for studying [15]. In this sense, motivation is one of the factors potentially influencing an individual's capacity to obtain success [16], enabling the achievement of positive results, boosting general well-being with individuals feeling fulfilment from their labours [16]. Hence, reducing demotivation levels is essential to ensuring positive results alongside the corresponding importance of verifying the orientation of motivation towards objectives that facilitate the learning process [17–19].

As the motivation to study this area of knowledge can vary according to the students' socio-cultural environment, family background, and nationality, this study's general objective is to understand if there are differences in motivation to study Marketing curricular units between Portuguese (PT) and Brazilian (BR) students. To accomplish this goal, we enunciate three main research questions that aim to differentiate Portuguese and Brazilian students: RQ1: What is the level of Amotivation (AMOT) to study Marketing? RQ2: What is the level of Intrinsic Motivation (IMOT) to study Marketing? RQ3: What is the level of Extrinsic Motivation (EMOT) to study Marketing?

Obtaining robust insights into student motivation would enable HEI Portuguese and Brazilian managers responsible for such students' academic progression to take informed decisions on the strategies applicable to better-involving students in learning in this field of knowledge.

2. Literature Review

2.1. The Importance of Motivation for Learning

Motivation closely relates to the value that each person attributes to their self-fulfilment. The efforts put into attaining the goals set and alongside the persistence necessary to attain something capable of generating self-esteem and human enthusiasm [20,21]. Within this framework, the motivational constructs interrelate with expectations and values, with the former enabling a higher performance level [22,23]. An individual's expectations regarding

their intelligence and attitudes concerning success and failure and reflecting on previous learning experiences influence performance and impact their learning experiences [24,25].

Success in learning emerges out of a combination of individuals' cognitive abilities and their motivational willingness [26], with the latter representing a crucial determinant of success to the extent this mediates the efforts applied and the individual level of involvement [27]. As a dynamic phenomenon, we may ascertain motivation in different forms according to how individuals experience this, shaped and influenced by their expectations and individual learning perceptions [28]. The different forms of motivation reflect in the three typologies; Amotivation (AMOT), Intrinsic Motivation (IMOT) and Extrinsic Motivation (EMOT). Following the Self Determination Continuum (SDT), AMOT reflects the dimension with the lowest level of self-determination, autonomy and sense of control as this refers to individual demotivation over completing specific tasks, followed by EMOT that encapsulates the external motivation encouraging the achievement of an objective and, finally, IMOT reflects the form of motivation with the highest level of self-determination, autonomy and sense of control as this arises when determined individuals dedicate themselves to an activity out of their own will and personal interest [29]. Hence, whenever individuals are intrinsically motivated, the quality of behaviour is more favourable than when extrinsically motivated [30]. When a particular task is satisfactory, the performance is clear and hence not requiring any extrinsic motivation that leverages behaviour to the extent to which there are incentives to make the individual feel intrinsically involved [22,26].

2.2. Motivation to Study Marketing

Studying Marketing proves to be relevant for students. Marketing knowledge can favour students' future employability because Marketing is an essential strategic tool for companies' performance [31]. Marketing skills can make it more manageable for students to enter the job market and get a job in the business field [32].

Marketing represents the companies' market strategies, and this impacts the companies' performance. Therefore, many companies are directing their efforts towards developing their Marketing, which requires professionals with well-developed Marketing skills [33,34]. Such skills are obtained in the study of Marketing, and this should be the primary motivation of students to study this strategic area. Thus, it is relevant to reinforce these aspects with students when they learn Marketing to give due importance to this area [35].

In addition, the growth in Marketing educational programmes coincides with educators and administrators' little understanding of what is needed to be successful [36], negatively impacting students' motivation.

Despite this challenging task to educators, motivating Marketing students has been a concern for Marketing educators for a long time [37] and getting more attention from educators [38].

Some studies conclude that Marketing students' motivation can be improved by adopting an active learning environment [39]. Recent studies support this claim, concluding that using active tools in the classroom increased students motivation to learn and search for knowledge [40]. Others concluded that active learning, besides improving students' motivation, increases students' satisfaction and helps students build business capabilities like critical thinking and decision-making [41,42]. Group projects seem to create and nurture motivation when well implemented by educators [39]. Gamification is one particular type of group projects with increased use to foster Marketing students' motivation to study [43,44].

2.3. Motivation Dimensions

Motivation is a theoretical construct used to explain the direction, intensity, persistence, and quality of particular human behaviour [45], presenting itself in the literature as a variable in both magnitude and orientation. Whether intrinsic or extrinsic, motivation is

used as a mediating variable that explains various behaviour types in various contexts and environments [46]. In education, motivation is considered a key determinant of learning and is used to explain the attention and effort students devote to the activities they are engaged in [47]. In this context, it is up to the teacher to manage the students' motivation, increasing its levels to generate positive results in the learning process [48,49].

There is some controversy about the impact that different motivation types have on learning, with discussions about which type of motivation (intrinsic motivation or extrinsic motivation) allows for better learning rates [45]. In this sense, it is fundamental to promote the student the desire to carry out a learning activity, for the simple pleasure experienced in it, for the usefulness and perceived satisfaction derived from its motivational aspect [1].

In order to more fully understand human behaviour, Deci and Ryan (1985) [50,51] proposed the concept of Amotivation (AMOT), interrelated with the conditions of despondency, indifference, disinterest, a lack of self-belief, exhaustion or depression [50]. AMOT reflects a lack of interest in self-fulfilment or conveys a generalized lack of willingness to engage in a specific task. Students do not feel either empowered or involved in attaining the respective objective [11]. Therefore, this condition identifies a state in which there is a lack of expectations among actions and their consequences [52–54] to the extent that the subject displays a lack of interest in dealing with a task as there is a lack of belief that the outcome shall be that sought after, whether stemming from ineptitude and incompetence [46]. According to Deci and Ryan (1985) [51], this dimension arose from failure's regularity. It sustained negative feedback that makes individuals assume that a particular result is simply unattainable, however much they might wish to achieve it [52].

Extrinsic Motivation (EMOT) interrelates with the level of individual participation in a particular task not out of their own will but rather due to external motives [53], for rewards, for advantages interrelated with their performance, the competition against third parties, with learning a means to attain a specific and previously defined goal or objective [12,54]. EMOT contains the four different SDT Continuum levels following rising levels of SDT [51,55,56]. EMOT has three levels of increasing self-determination, which are external regulation (EMER), regulation by introjection (EMIN), and regulation by identification (EMID) [51,56]. However, EMER is the one that best characterizes the EMOT. The individual performs a specific task because external motivation moves him to avoid punishment or achieve a certain reward, acting by external pressures that do not consider his interests, desires, and goals. This is the least autonomous form of motivation, regulated by external contingencies such as teachers and peers' incentives in the learning process [29]. In EMIN, there is already a certain degree of internalization of motives, but the person still acts more out of obligation or pressure than out of their own will. For example, students may behave in a certain way because they feel pressured by others rather than their own choices and desires [57]. In EMID, the person already identifies with the value of the activity to be performed, accepting the importance of specific actions performed, with a certain autonomy in decisions. The application of this extrinsic motivation typology can be verified when students identify with a specific school activity, accepting it voluntarily by regulating their behaviour to perform it [57].

Intrinsic Motivation (IMOT) measures the level of individual participation in a task that stems from internal reasons, being oneself, curiosity, the will to live and overcoming a particular challenge [55], in summary, the extent to which participating in a task represents an end in itself and intrinsically related with the level of individual willingness [17]. IMOT is subdivided into three unordered subdimensions: Intrinsic motivation for knowing/knowledge-To Know-(IMTK), which assesses the desire to perform a particular activity for the pleasure and satisfaction experienced during learning; intrinsic motivation for achievement—to accomplish—(IMTA), which assesses the desire to perform an activity for the pleasure and satisfaction in accomplishing or creating something and intrinsic motivation to experience stimulation—to stimulate—(IMTS), which measures the desire to perform an activity that stimulates the individual who engages in it [56].

SDT, applied to teaching, focuses more on whether students' motivation is more autonomous or controlled, predicting outcomes related to student's studies in the learning context, thus covering more the meaning, relevance, and persistence they give to the learning process, rather than the total amount of motivation they experience [58,59].

The different types of motivation resulting from SDT have been used in several studies and at different educational levels with positive results where experience, the relevance of learning and intention to complete the course have been evidenced [1,60,61]. Conversely, other studies have revealed negative results of motivation where the main aspects include the intention to abandon the studies [62,63] and effective abandonment [61,64–66].

Given the robustness evidenced over time in the literature, one of the most widely used SDT-based instruments for measuring student motivation is the Academic Motivation Scale (AMS) designed by Vallerand, Blais, Brière, and Pelletier (1989) [67].

2.4. Learning Marketing to Open Innovation Process

The establishment of a theory for the field of open innovation results from the work of Gassmann and Enkel (2004) [66] who present the concepts that formalize the processes that make up the theoretical model, they are: outside-in process and inside-out process. The outside-in process is responsible for enriching the organization's knowledge base through the integration of suppliers, customers and external knowledge, thus increasing the organization's capacity for innovation. The inside-out process maintains that innovations generated internally and that are not necessarily used in the organization can be outsourced or marketed to other companies, which could use them in a more profitable way [67]. In this sense, the learning of Marketing in higher education context is relevant so that future professionals can reveal innovative ideas of product promotion in the markets where they operate.

The process of open innovation is thus influenced by Marketing strategies and models that relate markets and innovation. Despite the large growth in research on open innovation [68–74], we identify several directions for future research: research on open innovation should be linked to other management areas such as Marketing, HR management and change management [67].

Furthermore, the concept of Open Innovation can be enhanced if the insights developed are related to existing management theories. Marketing allows bringing to market, the ability to change products based on Closed Innovation models to Open Innovation models [75]. The newest practice of bringing novelties to market in a short time is to use Open Innovation based models enhanced by well applied Marketing techniques. The interference of Marketing techniques in the inventor's domain has led to the emergence of models based on Open Innovation [76]. Marketing strategies and techniques can be implemented in the development of new products or services, through the identification and indication of solutions and ideas. Using Marketing techniques, companies identify the latest opportunities from which their customers wish to benefit and thus can adjust their own discoveries to those developed outside the company [77].

The results achieved in this way are beneficial to both businesses and end consumers. The Marketing techniques that students learn in higher education allow them to identify consumer preferences and reveal future trends, new discoveries, inventions and innovations that satisfy end-consumers. This is only possible through open innovation that allows companies to secure their market share and provide consumers with new products and services in a short time [78].

3. Research Gap and Model Proposed

Considering that no studies comparing the motivation to study Marketing in higher education among Portuguese and Brazilian students were found in the literature, and considering that few studies have individually studied this theme, we intend that this research may result in an added value that translates into an increase in academic knowledge related to this research theme. According to the literature set out above, to understand

this phenomenon and contribute to understanding better this research gap, we defined the research hypotheses that enable the testing of the model presented in Figure 1 to understand if there are differences in motivation to study Marketing curricular units between Portuguese (PT) and Brazilian (BR) students.

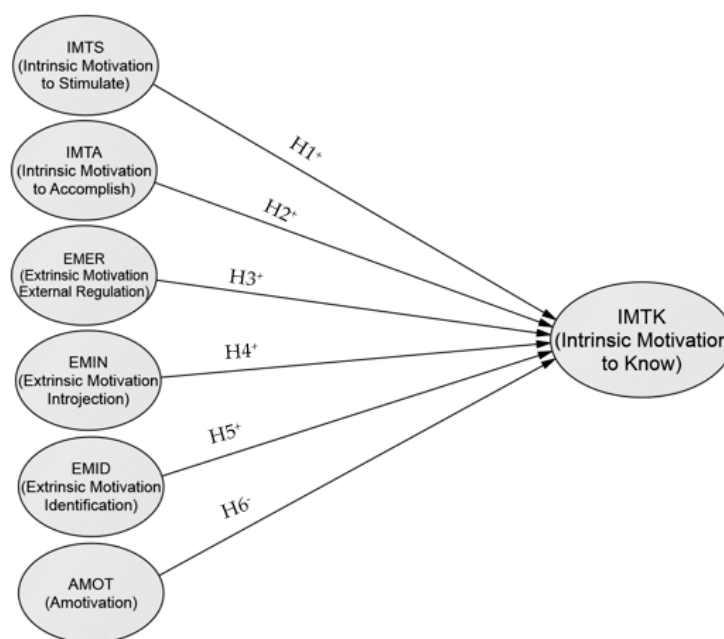


Figure 1. Research Model.

4. Methods

4.1. Participants

The participants were students between 18 and 30 years old, average age of 21 years, 56% male and 44% female. A total of 156 questionnaires were collected (82 in Portugal and 74 in Brazil). First-year students studying Marketing for the first time in higher education participated. The Portuguese students belonged to the University of Beira Interior and the Brazilian students to FUCEPE Business School. Of the students who participated in this study, only 5% had studied Marketing before entering higher education.

4.2. Empirical Study

In this case study, we used a quantitative methodology. A questionnaire survey that applied the Academic Motivation Scale (AMS) scale by Vallerand et al. (1992) [1] was given to Portuguese and Brazilian students studying Marketing curricular units in higher education. The original questionnaire had the following general starting question “Why do you go to college?” It has been translated and adapted to “Why would I spend my time studying Marketing?” The 28 items of the scale were translated and adjusted to be used in students who studied Marketing. The scale’s adaptation did not require many changes and adapted to the desired context, using almost equal affirmations in practically all the questions. The original AMS 7-point Likert scale, which varies from “Not fully corresponds to” and “Matched in full”, was maintained as well as all variables belonging to AMOT, EMOT and IMOT. The data analysis method was based on estimating two structural models, one for each group of students. Confirmatory Factor Analysis (CFA) was used, estimating two structural models using structural equations in AMOS 27 software. The multi-group analysis carried out [68,69] enabled the estimation of the construction of IMTK for both groups and immediately identifying how some of the variables in the initial model do not attain statistical significance and correspondingly removing all variables with factorial weightings of below 0.5 [71] to result in a more robust and significant model able to explain a right percentage proportion of IMTK. The final model tested returned

the following statistical findings ($\chi^2 = 1159.048$, $p = 0.001$, $\chi^2/\text{df} = 1.969$, RMSEA = 0.039, SRMR = 0.189, NFI = 0.880, GFI = 0.948, AGFI = 0.899 and CFI = 0.929), displaying a good level of suitability across practically all evaluation indicators [79]. Relative to the items and factors' reliability, we verified a good level of total internal consistency (CR = 0.793) for the 156 student sample (82 PT and 74 BR) who studied the Marketing CU at the university 2017/2018 academic year. As regards the convergent validity of the model (Table 1), we evaluated a further three metrics: Average Variance Extracted (AVE), Composite Reliability (CR) and Cronbach's Alpha (α).

Table 1. Validity and Reliability.

	AMOT	EMER	EMIN	EMID	IMTS	IMTA	IMTK
Portuguese Students							
CR	0.925	0.741	0.826	0.798	0.775	0.707	0.782
AVE	0.763	0.835	0.709	0.585	0.810	0.595	0.567
α	0.871	0.808	0.840	0.825	0.838	0.847	0.836
Brazilian Students							
CR	0.866	0.728	0.920	0.756	0.768	0.761	0.716
AVE	0.695	0.535	0.854	0.517	0.517	0.524	0.566
α	0.831	0.819	0.837	0.805	0.833	0.800	0.850

AMOT = Amotivation, **EMER** = Extrinsic Motivation External Regulation, **EMIN** = Extrinsic Motivation Introjection, **EMID** = Extrinsic Motivation Identification, **IMTS** = Intrinsic Motivation to Stimulate, **IMTA** = Intrinsic Motivation to Accomplish, **IMTK** = Intrinsic Motivation to Know.

5. Results

5.1. Study Dimensions Statistics

In Tables 2–4, we can see the descriptive statistics that demonstrate the dimensions measure results of the questionnaire completed by PT and BR students regarding their motivations for studying the Marketing CU across the dimensions making up the AMOT, EMOT and IMOT scales.

Table 2. Amotivation.

Likert	AMOT 1	AMOT 2	AMOT 3	AMOT 4	Likert	AMOT 1	AMOT 2	AMOT 3	AMOT 4
1	31	27	26	21	1	40	37	41	56
2 a 3	25	15	9	19	2 a 3	8	12	9	12
4	14	9	9	11	4	3	1	2	3
5 a 6	11	17	24	21	5 a 6	12	13	15	3
7	1	14	14	10	7	11	11	7	0
Mean	1.64	2.34	2.37	2.18	Mean	2.89	3.01	2.78	1.54
Total	82 students ($\alpha = 0.920$)				Total	74 students ($\alpha = 0.831$)			
Portuguese Students					Brazilian Students				

Table 3. Extrinsic Motivation.

Likert	EMER 1	EMER 2	EMER 3	EMER 4	EMIN 1	EMIN 2	EMIN 3	EMIN 4	EMID 1	EMID 2	EMID 3	EMID 4
1	19	8	7	5	10	18	35	11	1	0	1	5
2 a 3	14	13	11	13	25	17	17	11	6	6	5	8
4	14	20	12	8	7	8	8	13	15	8	6	9
5 a 6	20	24	28	28	19	20	11	26	35	36	38	36
7	7	9	16	20	13	11	3	13	17	24	25	16
Média Total	3.56	4.24	4.70	4.86	4.04	3.82	2.55	4.39	5.27	5.58	5.59	5.04
	74 students ($\alpha = 0.819$)				74 students ($\alpha = 0.837$)				74 students ($\alpha = 0.805$)			
Brazilian Students												

Table 4. Intrinsic Motivation.

Likert	IMTK 1	IMTK 2	IMTK 3	IMTK 4	IMTA 1	IMTA 2	IMTA 3	IMTA 4	IMTS 1	IMTS 2	IMTS 3	IMTS 4
1	7	1	0	0	0	1	33	1	3	28	4	3
2 a 3	17	8	9	6	13	23	11	17	18	18	22	24
4	31	17	17	20	20	27	16	22	23	16	20	19
5 a 6	21	43	38	36	34	26	19	36	31	17	28	27
7	6	13	18	20	15	5	3	6	7	3	8	9
Média Total	4.10	5.02	5.26	5.30	4.98	4.23	3.06	4.57	4.48	3.03	4.29	4.34
82 students ($\alpha = 0.818$)												
82 students ($\alpha = 0.867$)												
82 students ($\alpha = 0.856$)												
Portuguese Students												
Likert	IMTK 1	IMTK 2	IMTK 3	IMTK 4	IMTA 1	IMTA 2	IMTA 3	IMTA 4	IMTS 1	IMTS 2	IMTS 3	IMTS 4
1	2	2	3	5	5	28	1	7	24	3	11	11
2 a 3	11	4	11	9	17	21	11	18	15	7	25	26
4	11	13	15	7	29	13	22	13	13	11	10	8
5 a 6	31	36	26	38	17	9	27	27	17	38	21	25
7	19	19	19	15	6	3	13	9	5	15	7	4
Média Total	5.34	5.18	5.76	5.58	5.29	5.53	6.18	5.51	5.21	5.25	4.43	4.30
74 students ($\alpha = 0.850$)												
74 students ($\alpha = 0.800$)												
74 students ($\alpha = 0.833$)												
Brazilian Students												

5.1.1. Amotivation

In general terms, we may report that both countries' students hold motivations over studying as the average indices for demotivation border on the lowest limit of the scale. In this case, the closer the average result is to 1, the lower the demotivation towards studying. This represents an already expected average given that the Marketing CU is generally perceived as relatively exciting and motivating to students. However, when undertaking individual analysis, we may report that the BR students hold higher motivation for studying than their PT peers, keeping with some AMOT responses that reveal some demotivation (Table 3).

5.1.2. Extrinsic Motivation

Analysis of the EMOT scale applies the same approach as the IMOT scale. Thus, the more significant the score attributed, the greater the extrinsic motivation the student feels towards Marketing. The average values obtained across the three extrinsic motivation types range between 2.32 and 5.19 for the PT students and between 2.55 and 5.59 for the BR students demonstrating that the BR respondents hold a higher level of extrinsic motivation for studying than their PT peers. In general terms, both countries display extrinsic motivation towards their studies even if at the lower average level of the scale and correspondingly reflecting low levels of extrinsic motivation, essential stemming from the variables belonging to the EMER and EMIN dimensions (Table 3). Reading these results, we verify how some students lack this extrinsic motivation to study and learn about Marketing. Hence, they remain insensitive to the motivations triggered by third parties as a means of attaining specific objectives. This result does not amount to anything new as the will to study does not always derive from external interferences. Hence, we also need to grasp which values individual students reported from both countries regarding the EMOT dimensions.

5.1.3. Intrinsic Motivation

Table 4 shows that students from both countries demonstrate that they choose these curricular units according to their wishes, thus for personal motives and pleasure. However, we also need to consider these values beyond the general sense and verify whether there

are individual situations in which IMOT diverges from the averages presented above. This more individual analysis identifies some students, essentially PT, who do not encounter intrinsic motivation as we would otherwise expect.

General analysis of IMOT enables us to ascertain how many student respondents display intrinsic motivation for studying this subject. However, when we individually approach each type of IMOT, we conclude that despite the general average being reasonably positive, individual results deserve meticulous analysis. They display averages that would allow for improvement. Correspondingly, the three types of IMOT report the motivation to experience stimuli (IMTS): with the lowest results, with a general average of 4.04 for the PT and 4.80 for the BR students. The PT respondents report a lower level of intrinsic motivation for experiencing stimuli resulting from studying this CU than their BR peers. The other two types of motivation for knowledge (IMTK) and fulfilment (IMTA) present significant higher average values are ranging between 4.92 and 4.21 for the PT sample and between 5.47 and 5.63 for the BR sample. This demonstrates that the BR students have greater motivation to improve their knowledge and undertake learning-related activities for themselves than their PT counterparts.

We may infer that IMOT and its respective constituent dimensions return acceptable and positive average results. However, we also encounter individual cases of low intrinsic motivation levels for studying, especially among PT students. This situation requires considering adopting strategies able to better combat low IMOT levels soon.

5.1.4. Tested Research Model–Multi-Group Analysis

In Table 5, we may observe the summary of the hypotheses tested following the best research model for each stage of the multi-group analysis carried out (PTMod and BRMod) as well as the results obtained that conclude that the variation that occurred in IMTK differs in both of the tested models (Figure 2). The structural results point to the dimensions of IMTS, IMTA, EMER, EMIN, EMID and EMOT as holding direct statistically significant influences over the IMTK of PT students and the dimensions of IMTS, IMTA, EMIN, EMID and EMOT as holding direct statistically significant influences over the IMTK of BR students, validating the formulated research hypotheses H1, H2, H3, H4, H5, H6 and H7 for the PT students and H1, H2, H4, H5, H6 and H7 for the BR students. Thus, for H3, Brazilian respondent answers do not attribute statistical significance ($p > 0.05$) and thus fail to back the hypothesis of EMER influencing the IMTK of BR students studying Marketing. As would be expected in both groups, the AMOT dimension lowers the IMTK for learning Marketing.

Table 5. Research hypotheses and statistical results–PTMod and BRMod.

Hipóteses	Relationship	Regression Coefficients	Standard Error	t	p-Value	Result
Portuguese Students (PTMod)						
H1	IMTS→IMTK	0.101	0.037	2.710	<0.05	Supported
H2	IMTA→IMTK	0.132	0.073	3.197	<0.001	Supported
H3	EMER→IMTK	0.091	0.046	1.962	<0.05	Supported
H4	EMIN→IMTK	0.069	0.033	2.108	<0.05	Supported
H5	EMID→IMTK	0.557	0.139	3.335	<0.001	Supported
H6	AMOT→IMTK	−0.100	0.046	2.175	<0.05	Supported
Brazilian Students (BRMod)						
H1	IMTS→IMTK	0.350	0.092	2.366	<0.05	Supported
H2	IMTA→IMTK	0.590	0.110	3.306	<0.001	Supported
H3	EMER→IMTK	0.140	0.070	0.557	0.578	Non Supported
H4	EMIN→IMTK	0.251	0.047	2.356	<0.05	Supported
H5	EMID→IMTK	0.630	0.331	2.842	<0.05	Supported
H6	AMOT→IMTK	−0.080	0.037	1.979	<0.05	Supported

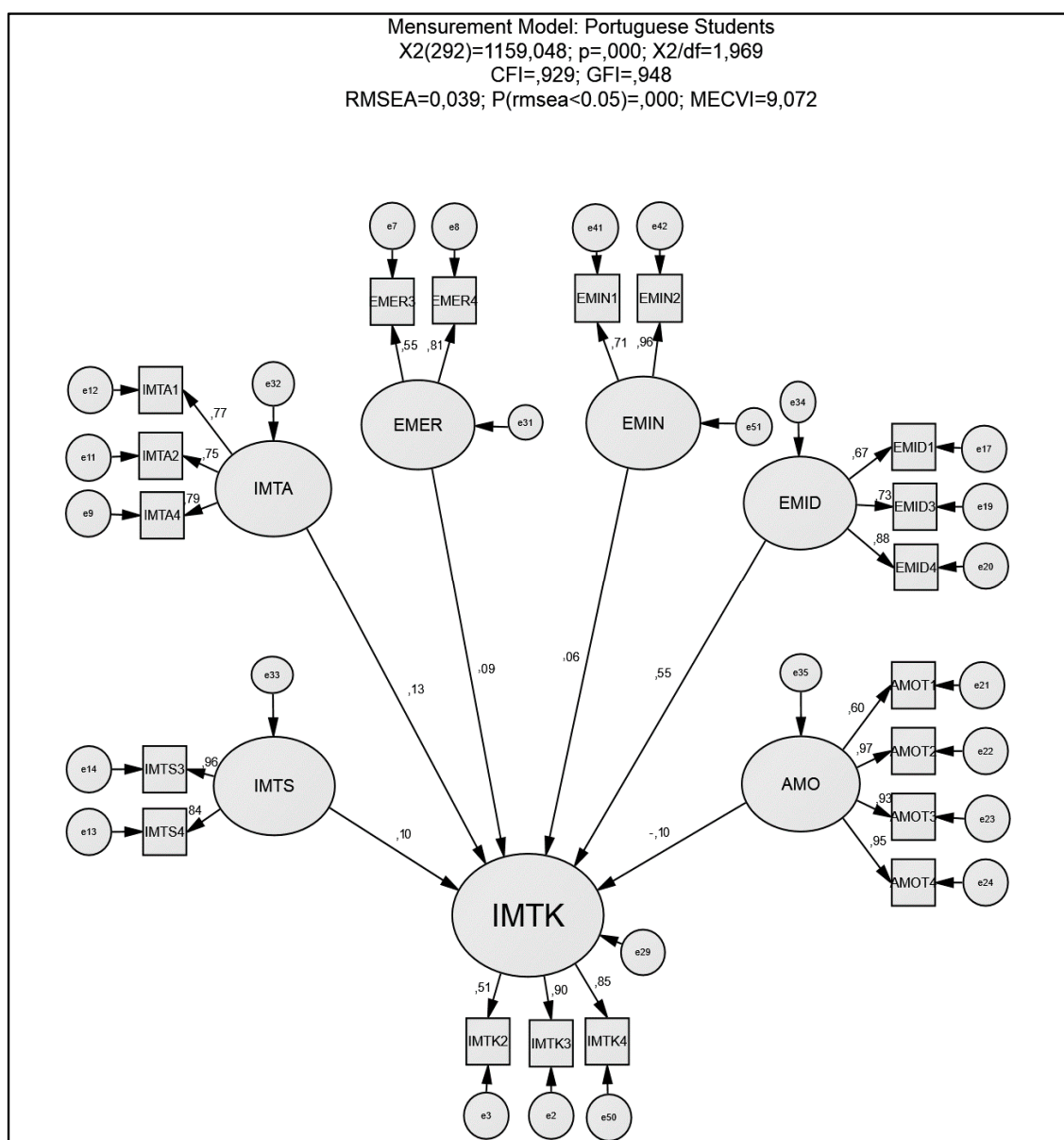


Figure 2. Structural Model-Portugal.

The models presented below (Figures 2 and 3) represent the motivation dimension influence in Intrinsic Motivation of Portuguese Students (PTMod) and Brazilian Students (BRMod) to know Marketing during the teaching and learning process. Following analysis of the PT structural model, we may report that the Extrinsic Motivation (EMOT) dimension with EMID ($\beta = 0.557$; $p < 0.001$), EMER ($\beta = 0.091$; $p < 0.05$) and EMIN ($\beta = 0.069$; $p < 0.001$) held a greater impact in Intrinsic Motivation to Know Marketing. The same impact were obtained in Intrinsic Motivation (IMOT) dimension with IMTA ($\beta = 0.132$; $p < 0.001$) and IMTS ($\beta = 0.101$; $p < 0.05$) and AMOT ($\beta = -0.100$; $p < 0.05$). As regards the BR structural model, we may state that the EMOT dimensions like EMER ($\beta = 0.140$; $p > 0.05$) did not achieve statistical significance, but EMID ($\beta = 0.630$; $p < 0.05$) and EMIN ($\beta = 0.251$; $p < 0.05$); however, this did assume statistical relevance in the IMTK Marketing. The IMOT dimension returned statistically relevant results for IMTA ($\beta = 0.590$; $p < 0.001$) and IMTS ($\beta = 0.350$; $p < 0.05$) with AMOT ($\beta = -0.080$; $p < 0.05$) also holding statistical influence.

The two structural models studied showed that Portuguese and Brazilian students are intrinsically and extrinsically motivated to study Marketing in a higher education learning context. However, Brazilian students show higher levels of motivation.

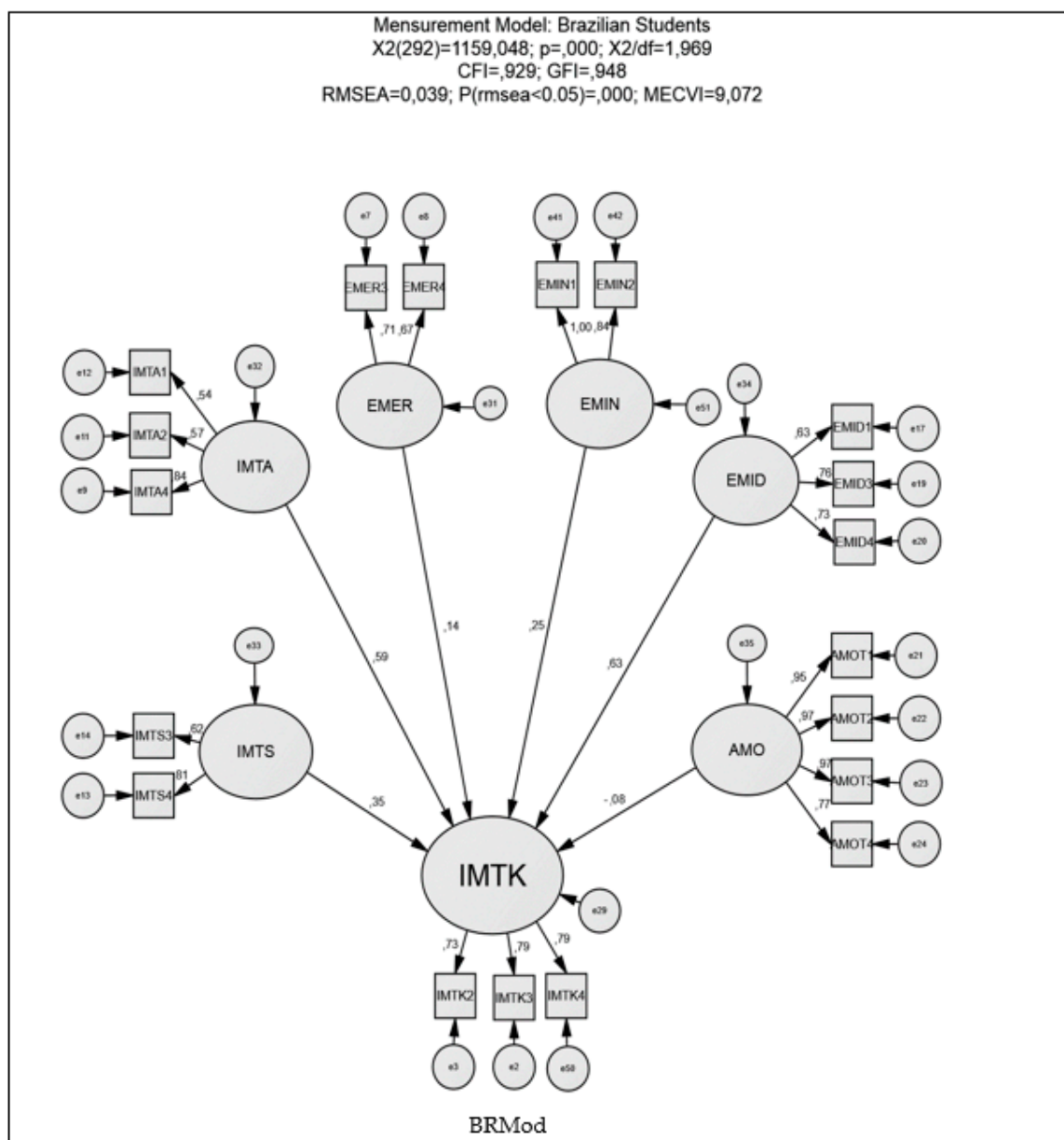


Figure 3. Structural Model–Brazil.

6. Discussion

6.1. Motivation Difference of Marketing Study, and Its Implication for Open Innovation

Open innovation has been studied, essentially, in high technology multinational companies. This type of company applies several practices where Marketing is also included. Good marketing practices may be an innovation engine, it being essential that those who study this area have a deep knowledge of the several techniques that allow better integration in the market [66–68]. In this sense, higher education students learning these techniques assume an essential role for open innovation. To be innovative and promote innovation, it is necessary to have ideas on entering, maintaining, and avoiding leaving the market. In this sense, good academic training will be the basis for forming good professionals that will allow companies to maintain their long-life cycle [67]. The main problem for companies is the need for open innovation strategies and market entry and commercialisation. Marketing strategies can be fundamental to overcome these difficulties, leading to the acquisition of the necessary and effective knowledge for innovation pro-

cesses. Entrepreneurial marketing strategies capable of involving customers and creating commercialisation networks allow for leveraging its market [76,77].

In short, cultural differences in Marketing learning may lead to the fact that open innovation strategies may vary from country to country, increasing asymmetries between different markets. For this reason, higher education institutions must work identically so that their students, who will be future professionals inserted in the market, can effectively contribute to the economic and entrepreneurial growth and development [31–35].

6.2. Motivation Difference of Marketing Study

This study's results demonstrate a higher rating for EMOT than for IMOT, previous corroborating studies applying AMS to evaluate motivations for studying [80,81]. We verify how the levels of motivation rose along the Self-Determination Continuum course proposed by Ryan and Deci (2000b) [12], with BR students' EMOT and IMOT dimensions higher than those reported by PT students. At the individual level, we verify that both in the PT and the BR students' cases, EMOT is higher than IMOT, which reflects levels of extrinsic motivation that outstrip those of intrinsic motivation [57,60].

The BR students presented Extrinsic Motivation scores (EMER = 0.140; EMIN = 0.251 and EMID = 0.630) much higher than the PT with EMOT values (EMER = 0.091; EMIN = 0.069 and EMID = 0.557), which demonstrates a higher Extrinsic Motivation to study this area of knowledge. In this sense, when using the SDT to assess academic motivation, it is possible to understand whether the motivation of students is more autonomous or controlled as well as to verify the type of relevance and persistence that they use in the teaching-learning process and the weight that motivation has in their experiences [73,74].

The results revealing the extrinsic motivation more significant than intrinsic motivation, both among Brazilian students and Portuguese students, is an essential insight for professors in the Marketing area. This result reveals that students from both countries have difficulty recognizing the importance of Marketing for their professional training (less intrinsic motivation) [68]. Consequently, it is up to the Marketing professors to demonstrate the actual value of Marketing and improve students' competitiveness in the job market. Especially, Brazilian students are more sensitive to external stimuli. The results can guide Marketing professors to strive to demonstrate the relevance of one of the most important areas for management, Marketing, which has, as a function, the generation of revenue for companies [74].

Concerning Intrinsic Motivation, there is also a higher level of motivation in BR students (IMTS = 0.350 and IMTA = 0.590). In contrast, PT students have lower values (IMTS = 0.101 and IMTA = 0.132), showing that the individual's internal motivation represents the different ways he feels motivated to assume certain behavioural aspects following the accomplishment of tasks he proposes to achieve [59].

Finally, the analysis of Amotivation also showed more significant results in BR students with a lower degree of demotivation (−0.080) than PT students (−0.100), which reveals, although in a residual way, that Brazilian students are less demotivated to study than Portuguese students who show a lack of intentionality or lack of motivation [11,82–84]. A demotivated individual is in a state of incompetence to perform a particular activity, not believing he/she can perform it successfully [59]. The results obtained corroborated the theoretical basis of SDT concerning that intrinsic and extrinsic motivations are susceptible to enhancement while reducing demotivation [76–79].

When interpreting the results considering the Brazilian and Portuguese realities, we can see that Brazilian students tend to attach more importance to Marketing learning. This may be because Brazil is a developing country, which presents more opportunities than Portugal, an already developed and much more competitive economy [77]. As Marketing is the basis for attracting and retaining customers, Marketing learning in Brazil can favour the insertion of Brazilian students in the job market. This may explain the higher level of intrinsic motivation and the lower degree of demotivation of Brazilian students than the Portuguese [14,15].

6.3. The Direction of Open Innovation in the Difference of Marketing Study

The study of Marketing influences how a multidisciplinary vision of open innovation is adopted insofar as operations and Marketing perspectives are necessary to develop products. This product development allows the increase in a dynamic business cycle capable of three types of innovation: Open Innovation with three sub-economies: open market innovation by SMEs and start-ups, closed open innovation by big business, and open social innovation [72,85–88]. In this sense, we verify the enormous potential of open innovation for SME's, which allows developing collaboration models that increase commercialisation potential after invention, promoting innovation and collaboration between different companies and creating trust among the various members of the network [89–91]. On the other hand, the cultural aspect (where the learning of an area of knowledge in different countries is also included) also influences open innovation because the conceptual model of culture for the dynamics of open innovation is explained by dimensions such as the entrepreneurship of the inexperienced, intrapreneurial and organisational. This cultural aspect influences the dynamics of innovation, namely the culture of leadership [74]. Finally, it is important to highlight that the success of companies depends, to a large extent, on their efforts to move towards open innovation. Adopting open innovation strategies is the path to follow for companies that want to grow and develop increasingly in the markets where they operate [70]. Similarly to companies, higher education institutions must also adopt measures to train students capable of contributing to the development of open innovation based on innovative strategies.

7. Conclusions, Limitations and Future Research Proposals

This research study returned insights into PT and BR students' motivation who study Marketing at HEIs and the motivation dimensions that influence their will to study. The study incorporated a sample of 156 students (82 PT and 74 BR) who attended a Marketing CU at university in the 2017/2018 academic year. These students filled out a questionnaire that resulted from an adaptation of the AMS proposed by Vallerand et al. (1992) [1], having thus evaluated the diverse dimensions making up motivation (EMOT and IMOT) and amotivation (AMOT). This type of scale has proved helpful in analyzing the different motivation types to study the area of Marketing [76,77]. In general terms, students of both nationalities returned irrefutable indicators for extrinsic and intrinsic motivation. However, we also found small groups that display lower levels of Marketing study-related motivation. After undertaking the descriptive statistics analysis, we may report that BR students hold more significant study-related motivations than their PT counterparts. There was evidence that the BR students are intrinsically and extrinsically more motivated than PT students, demonstrating a greater capacity to be self-motivated and simultaneously experiencing influences from third parties that pressure them to engage in their studies than the PT students. In addition to being more intrinsically and extrinsically motivated, BR students also revealed lower overall demonstration indices than PT students. In general terms, we can state that BR students are more motivated to study Marketing in higher education than PT students, which reveals a culture of greater proximity to the area of Marketing on the part of BR higher education students. This study also demonstrated the existence of motivational differences over the study of Marketing between PT and BR students and identifying the need to design measures able to nurture the motivations of demotivated students and, whenever possible, maintaining and/or boosting the motivations of those expressing a desire to study. The introduction of new forms of studying that move on from traditional methods might contribute to returning a significant increase in the future results of learning for this type of student. Therefore, when seeking to increase the motivation to facilitate learning, we might need to consider the deployment of new tools within the near future as the best means of enhancing the learning process.

As contributions and implications, the results of our study can guide Marketing professors. As extrinsic motivation is greater in both countries, it is up to professors to attract students' attention to motivate them to know and learn Marketing. This can be

done by presenting examples and real cases that demonstrate how Marketing makes a difference for companies and market professionals. This effort can be reflected in the market, with new professionals with more updated and in-depth knowledge about Marketing contributing to the competitiveness of companies. Marketing companies may require more effort from higher education institutions to teach Marketing, and educational policies may already insert Marketing at more basic educational levels. After all, professionals with solid Marketing knowledge tend to bring more contributions to companies, the market and society.

This case study presents some limitations, essentially concerning the sample size, which is reduced. However, we believe that this limitation does not make the study less attractive. The difficulty that all researchers have to find students in higher education Institutions available to participate in this type of study makes it more difficult to obtain more relevant samples. Despite this, the study is relevant for bringing evidence of Marketing students' behaviour in a comparative perspective between the two countries.

Additionally, it may be interesting to consider the socioeconomic environment in which the students are inserted, observing, for example, the parents' profession and the parents' educational history. Another possibility for future research is to investigate secondary school students. It can reveal interesting insights. We intend to use this methodology with students from other areas of knowledge to make comparisons that assess the motivations to study between different areas, between different institutions, between different levels of education and between different countries. This type of future research that we are now proposing will allow other more robust and exciting case studies to be carried out to scientific evolution knowledge.

Author Contributions: Conceptualization, R.G.R., R.S. and E.W.M.; methodology, R.S.; software, R.S.; validation, R.G.R. and C.L.; formal analysis, R.S. and R.G.R.; investigation, R.S. and R.G.R.; writing—original draft preparation, R.G.R., R.S., C.L. and E.W.M.; writing—review and editing, R.G.R., R.S., C.L. and E.W.M.; visualization, R.S.; supervision, R.G.R.; project administration, R.G.R. All authors have read and agreed to the published version of the manuscript.

Funding: Authors Ricardo Gouveia Rodrigues and Emerson Mainardes' work is supported by national funds through the FCT-Portuguese Foundation for Science and Technology under the project UIDB/04630. The author Rui Silva and Carmem Leal work is supported by national funds through the FCT-Portuguese Foundation for Science and Technology under the project UIDB/04011/2020. The author Emerson Mainardes research was supported by Brazilian National Council for Scientific and Technological Development (CNPq/Brazil), project 303669/2015-2, by Foundation for Research Support of Espírito Santo (FAPES/Brazil), projects 84513772 (599/2018) and 85395650 (228/2019), and by IFTS (Instituto Fucape de Tecnologias Sociais), project 2021-2024.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Not applicable.

Acknowledgments: The authors gratefully acknowledge the University of Beira Interior (NECE-Research Center in Business Sciences) and, University of Trás-os-Montes and Alto Douro CETRAD (Centre for Transdisciplinary Development Studies).

Conflicts of Interest: The authors declare no conflict of interest

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